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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Detailed Action

1. This Supplemental Examiners Answer has been submitted in order to include the "**(1) Real Party in Interest"** section, which was inadvertently omitted from the previous Examiners Answer sent 6/28/2007.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/015,165
Filing Date: December 11, 2001
Appellant(s): CALVIGNAC ET AL.

Joscelyn G. Cockburn
For Appellant

Supplemental EXAMINER'S ANSWER

This is in response to the appeal brief filed February 12/2007 appealing from the Office action mailed September 13, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6691124	Gupta et al.	10-2004
5417704	Spinney	5-1995
6173384	Weaver	1-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. Claims 32 and 34 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 32 and 34 disclose searches being executed/preformed "sequentially".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 8-15, 17-23, 26-31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta et al. (U.S. Patent No. 6,691,124) further in view of Spinney (U.S. Patent No. 5,417,704).

As to claim 1, Gupta et al. teaches a search method (See abstract) comprising the acts of:

b) setting a threshold based upon a fixed number of nodes to be traversed in the tree structure (See column 6, lines 63-67; column 7, lines 1-5; column 9, lines 2-11, where "node" is read on "predetermined characteristic");

c) using select bits from the packet to traverse the tree structure until the threshold is met (See column 4, lines 47-50).

Gupta et al. does not teach using N bits, N being an integer, from a packet as an index into a data structure including a Direct Table with at least one entry and a tree structure operatively coupled to the one entry; storing in a Contents Address Memory (CAM) at least one entry based upon a predetermined characteristic of the packet and a second predetermined characteristic of the tree structure; reading the CAM; and using information at the at least one entry to access a memory location whereat action to be taken relative to the packet is stored.

Spinney teaches address lookup in a packet data communications link, using hashing and content-addressable memory (See abstract), in which he teaches

a) using N bits, N being an integer, from a packet as an index into a data structure including a Direct Table with at least one entry and a tree structure operatively coupled to the one entry (See column 15, lines 4-51);

d) storing in a Contents Address Memory (CAM) at least one entry based upon a predetermined characteristic of the packet and a second predetermined characteristic of the tree structure (See abstract; column 2, lines 8-10; column 26, lines 55-58); and

e) reading the CAM (See abstract; column 2, lines 59-67; column 3, lines 1-2); and

e1)using information at the at least one entry to access a memory location whereat action to be taken relative to the packet is stored (See column 9, lines 26-28).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Gupta et al., to include using N bits, N being an integer, from a packet as an index into a data structure including a Direct Table with at least one entry and a tree structure operatively coupled to the one entry; storing in a Contents Address Memory (CAM) at least one entry based upon a predetermined characteristic of the packet and a second predetermined characteristic of the tree structure; reading the CAM; and using information at the at least one entry to access a memory location whereat action to be taken relative to the packet is stored.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Gupta et al., by the teachings of Spinney because using N bits, N being an integer, from a packet as an index into a data structure including a Direct Table with at least one entry and a tree structure operatively coupled to the one entry; storing in a Contents Address Memory (CAM) at least one entry based upon a predetermined characteristic of the packet and a second predetermined characteristic of the tree structure; reading the CAM; and using

information at the at least one entry to access a memory location whereat action to be taken relative to the packet is stored would be more efficient in space, time and cost, compared to prior methods (See Spinney, column 2, lines 65-67).

As to claim 8, Gupta et al. teaches a method for correlating a search key with a database (See column 25, lines 32-34, where "address lookup" is read on "search key") comprising the acts of:

a) using N bits, N > 1 from the search key as an index into the database including entries having a Direct Table with at least one entry and at least one tree structure operatively coupled to the one entry (See abstract; column 2, lines 4-10);

b) setting a threshold based upon a fixed number of nodes to be traversed in the tree structure (See column 6, lines 63-67; column 7, lines 1-5; column 9, lines 2-11, where "node" is read on "predetermined characteristic"); and

c) using M bits (M > 1) from the search key to traverse the tree structure until the threshold is met (See column 4, lines 1-17; column 6, lines 63-67).

Gupta et al. does not teach reading from a CAM information that indicates action to be taken relative to the search key.

Spinney teaches address lookup in a packet data communications link, using hashing and content-addressable memory (See abstract), in which he teaches

d) reading from a CAM information that indicates action to be taken relative to the search key (See abstract; column 2, lines 8-10; column 26, lines 55-58).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Gupta et al., to include reading from a CAM information that indicates action to be taken relative to the search key.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Gupta et al., by the teachings of Spinney because reading from a CAM information that indicates action to be taken relative to the search key would be more efficient in space, time and cost, compared to prior methods (See Spinney, column 2, lines 65-67).

As to claim 9, Gupta et al. as modified, teaches wherein the search key includes a portion of a data packet (See Gupta et al., column 1, lines 12-16).

As to claim 10, Gupta et al. as modified, teaches wherein the information includes the address of a leaf in which the action is stored (See Gupta et al., column 2, lines 11-17).

As to claim 11, Gupta et al. as modified, teaches wherein the reading step further includes the step of using the N bits as index into the CAM (See Spinney, column 3, lines 27-33).

As to claim 12, Gupta et al. teaches at least one memory device, operatively coupled to the processor complex, that stores data structures including a Direct Table, nodes and leaves operatively chained together (See abstract; column 2, lines 4-10); and

Gupta et al. does not teach an apparatus comprising:

an embedded processor complex including a plurality of protocol processors; a control point processor operatively coupled to the processor complex; a plurality of hardware accelerator co-processors accessible to each protocol processor and providing high speed pattern searching, data manipulation and frame parsing; and a Memory location operatively coupled to the processor complex and storing a value representative of the maximum number of nodes to be accessed during a tree search routine.

Spinney teaches address lookup in a packet data communications link, using hashing and content-addressable memory (See abstract), in which he teaches an apparatus (See column 26, lines 62-64) comprising:

an embedded processor complex including a plurality of protocol processors (See column 5, lines 45-49);

a control point processor operatively coupled to the processor complex (See column 5, lines 45-49; column 6, lines 8-13);

a plurality of hardware accelerator co-processors accessible to each protocol processor and providing high speed pattern searching, data manipulation and frame parsing (See column 4, lines 7-13; column 6, lines 14-21; column 14, lines 55-61); and

a Memory location operatively coupled to the processor complex and storing a value representative of the maximum number of nodes to be accessed during a tree search routine (See column 3, lines 12-17, lines 25-30).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Gupta et al., to include an apparatus comprising: an embedded processor complex including a plurality of protocol processors; a control point processor operatively coupled to the processor complex; a plurality of hardware accelerator co-processors accessible to each protocol processor and providing high speed pattern searching, data manipulation and frame parsing; and a Memory location operatively coupled to the processor complex and storing a value representative of the maximum number of nodes to be accessed during a tree search routine.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Gupta et al., by the teachings of Spinney because an apparatus comprising: an embedded processor complex including a plurality of protocol processors; a control point processor operatively coupled to the processor complex; a plurality of hardware accelerator co-processors accessible to each protocol processor and providing high speed pattern searching, data manipulation and frame parsing; and a Memory location operatively coupled to the processor complex and storing a value representative of the maximum number of nodes to be accessed during a tree search routine would be more efficient in space, time and cost, compared to prior methods (See Spinney, column 2, lines 65-67).

As to claim 13, Gupta et al. as modified, teaches further including a Contents Address Memory (CAM) operatively coupled to the processor complex and storing a pointer identifying a location whereat a leaf is stored (See Spinney, column 5, lines 45-59).

As to claim 14, Gupta et al. as modified, teaches wherein the leaf contains information on actions to be taken relative to a packet (See Gupta et al., abstract; column 2, lines 14-17).

As to claim 15, Gupta et al. as modified, teaches wherein the CAM further includes an indicia paired with the pointer the indicia being selected from a portion of the packet (See Spinney, column 16, lines 20-25).

As to claim 17, Gupta et al. as modified, teaches further including a circuit that deletes pointers from the CAM based upon leaf adjustment in the tree structure (See Gupta et al., column 7, lines 7-9; where "insertion or a node removal" are read on "leaf adjustments"; Spinney, column 16, lines 20-25).

As to claim 18, Gupta et al. as modified, teaches wherein the leaf adjustments include deletion (See Gupta et al., column 7, lines 7-9; where "node removal" is read on "deletion").

As to claim 19, Gupta et al. as modified, teaches wherein the Control Point Processor is programmed to generate and forward frames containing information that adjusts the data structure (See Gupta et al., column 7, lines 1-12; Spinney, column 6, lines 8-13).

As to claim 20, Gupta et al. as modified, teaches wherein the adjustment includes leaf deletion or insertion (See Gupta et al., column 7, lines 7-9; lines 20-25; where "node removal" is read on "deletion").

As to claim 21, Gupta et al. teaches a data structure (See abstract) comprising:

a Direct Table having at least two entries (See abstract; column 2, lines 4-10);

a tree structure operatively coupled to each one of the at least two entries and having a plurality of nodes and leaves operatively chained together (See column 4, lines 1-17); and

Gupta et al. does not teach a storage storing a threshold value indicating a fixed predefined number of nodes to be accessed during a walk of the tree structure.

Spinney teaches address lookup in a packet data communications link, using hashing and content-addressable memory (See abstract), in which he teaches a storage storing a threshold value indicating a fixed predefined number of nodes to be accessed during a walk of the tree structure (See column 3, lines 12-17).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Gupta et al., to include a storage storing a threshold value indicating a fixed predefined number of nodes to be accessed during a walk of the tree structure.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Gupta et al., by the teachings of Spinney because a storage storing a threshold value indicating a fixed predefined number of nodes to be accessed during a walk of the tree structure would be more efficient in space, time and cost, compared to prior methods (See Spinney, column 2, lines 65-67).

As to claim 22, Gupta et al. as modified, teaches further including Contents Address Memory, CAM, in which leaf information is stored if the leaf is connected to a node whose count is above the threshold value (See Gupta et al., column 4, lines 1-17).

As to claim 23, Gupta et al. as modified, teaches further including a co-processor responsive to at least a command to use part of the DA (Destination Address) of a packet to index into the DT (Direct Table) and the remaining part of the DA to search the associated tree, the co-processor selecting, information stored in a leaf if the leaf is attached to a node below the threshold value or selecting information stored in the CAM if the leaf is attached to a node whose count is above the threshold value (See Gupta et al., column 7, lines 1-12; Spinney, column 14, lines 48-66).

As to claim 26, Gupta et al. as modified, teaches a circuit that delete pointers from CAM based upon non-use of the information within a predefined time interval (See Gupta et al., column 7, lines 7-9; also see Spinney, column 16, lines 20-25).

As to claim 27, Gupta et al. as modified, teaches wherein the adjustment includes leaf insertion (See Gupta et al., column 7, lines 7-9; lines 20-25; where "node removal" is read on "deletion").

As to claim 28, Gupta et al. teaches method (See abstract) comprising:

setting a threshold having a value equal to a fixed predefined number of the N nodes to be traversed (See column 6, lines 63-67; column 7, lines 1-5; column 9, lines 2-11); and

selecting, with a second processor, bits from the key and traversing the tree based upon the bits until the threshold is met (See column 4, lines 47-50).

Gupta et al. does not teach providing a data structure configured as a tree having N nodes, N >1, and M leaves, M >1, operatively coupled to the N nodes; generating with a first processor a key from a packet; providing in a CAM at least one entry with information relating to the key and Information relating to the data structure; reading at least one entry in the CAM to detect a location whereat action to be taken relative to the packet is stored.

Spinney teaches address lookup in a packet data communications link, using hashing and content-addressable memory (See abstract), in which he teaches providing

a data structure configured as a tree having N nodes, N >1, and M leaves, M >1, operatively coupled to the N nodes (See column 15, lines 4-51); generating with a first processor a key from a packet; providing in a CAM at least one entry with information relating to the key and Information relating to the data structure (See column 5, lines 45-49; column 9, lines 23-37); reading at least one entry in the CAM to detect a location whereat action to be taken relative to the packet is stored (See abstract; column 2, lines 59-67; column 3, lines 1-2; column 9, lines 26-28).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Gupta et al., to include providing a data structure configured as a tree having N nodes, N >1, and M leaves, M >1, operatively coupled to the N nodes; generating with a first processor a key from a packet; providing in a CAM at least one entry with information relating to the key and Information relating to the data structure; reading at least one entry in the CAM to detect a location whereat action to be taken relative to the packet is stored.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Gupta et al., by the teachings of Spinney because providing a data structure configured as a tree having N nodes, N >1, and M leaves, M >1, operatively coupled to the N nodes; generating with a first processor a key from a packet; providing in a CAM at least one entry with information relating to the key and Information relating to the data structure; reading at least one entry in the CAM to detect a location whereat action to be taken relative to the packet is stored would be

more efficient in space, time and cost, compared to prior methods (See Spinney, column 2, lines 65-67).

As to claim 29, Gupta et al. as modified, teaches providing a Direct Table (DT) having at least on entry operatively coupled to the tree (See Spinney, column 9, lines 17-21).

As to claim 30, Gupta et al. as modified, teaches wherein Information relating to the key including a destination address in the packet (See Spinney, column 9, lines 23-37).

As to claim 31, Gupta et al. as modified, teaches wherein the information relating to the data structure includes an address where at least one of the N leaves is stored (See Gupta et al., abstract; column 2, lines 8-17).

As to claim 33, Gupta et al. as modified, teaches a pointer provided in the storage, the pointer identifying address of the CAM (See Spinney, column 16, lines 16-31).

4. Claims 2-4, 6-7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta et al. (U.S. Patent No. 6,691,124) in view of Spinney (U.S.

Patent No. 5,417,704), as applied to claims 1, 8-15, 17-23, 26-31 and 33 above, and further in view of Weaver (U.S. Patent No. 6,173,384).

As to claim 2, Gupta et al. as modified, still does not teach wherein N includes the first sixteen bits of a Destination MAC Address.

Weaver teaches a method of searching for a data element in a data structure (See abstract) in which, he teaches wherein N includes the first sixteen bits of a Destination MAC Address (See column 4, lines 43-49; column 5, lines 25-32).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Gupta et al. as modified, to include wherein N includes the first sixteen bits of a Destination MAC Address.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Gupta et al. as modified, by the teachings of Weaver because wherein N includes the first sixteen bits of a Destination MAC Address would reduce the chance of a collision, or if a collision occurs, reduces the number of subsequent searches required to find the index values (See Weaver, column 5, lines 17-23).

As to claim 3, Gupta et al. as modified, teaches wherein the tree structure includes a plurality of nodes and leaves operatively coupled to selected nodes (See Gupta et al., column 2, lines 10-14; column 4, lines 1-17).

As to claim 4, Gupta et al. as modified, teaches Pattern Search Control Blocks (PSCBs) carrying search information positioned at selected nodes (See Gupta et al., column 2, lines 14-17, where "search nodes" is read on "Pattern search Control Blocks (PSCBs)"; column 3, lines 59-63).

As to claim 6, Gupta et al. as modified, as modified, teaches wherein the selected bits include the remaining thirty-two bits of the Destination MAC Address (See Weaver, column 4, lines 43-49; column 5, lines 25-32).

As to claim 7, Gupta et al. as modified, teaches wherein the second predetermined characteristic includes leaves (See Gupta et al., column 2, lines 10-14; column 9, lines 4-11, where "node" is read on "predetermined characteristic").

As to claim 16, Gupta et al. as modified, teaches wherein the indicia includes a portion of a Destination MAC Address in the packet (See Weaver, column 4, lines 43-49; column 5, lines 25-32).

(10) Response to Argument

In response to applicants' arguments regarding "***it is Appellant's contention the specification comports with the written description requirements set forth under 35 USC 112, first paragraph,***" the arguments have been fully considered but are not found to be persuasive, because the specification does not disclose "the tree

walk and CAM search are being executed **sequentially**" as the applicant claims. The applicant points to page 10, lines 8-13 in the specification where the term "once" is suggested to disclose the walk and search being executed "Sequentially" however, the examiner does not agree that "sequentially" has the same meaning as "once". Sequential is defined as "characterized by regular sequence of parts" whereas once can be also defined as "if or when at anytime; if ever or whenever; as soon as" (See Dictionary.com). Examiner views these terms to be different and "once" does not suggest "sequentially, furthermore neither does "simultaneously" which is also pointed out in the applicant argument. "Simultaneously" is defined as occurring at the same time, which is the total opposite of occurring in a sequence. Therefore, the examiner maintain the 35 USC 112, first paragraph rejection.

In response to applicants' arguments regarding Gupta et al teaching "***suggests searching in a branch continues until all nodes are traversed. In this case, there is no need to set a threshold based upon number of nodes to traverse a is required by Claim 1,***" the arguments have been fully considered but are not found to be persuasive, because Gupta does disclose setting a threshold (See column 7, lines 1-5). Furthermore, even if the applicants' argument regarding "searching in a branch continues until all nodes are traversed" were true, the claim language does not exclude that the "fixed number of node" can be ALL the nodes within the tree, therefore the applicant argument would be moot.

In response to applicants' arguments regarding "***In addition, Claim 1 recites: "(d) storing in a Contents Address Memory (CAM) at least one entry based upon a***

predetermined characteristic of the packet and a second predetermined characteristic of said tree structure...Appellants have reviewed the Spinney reference, including the sections relied on by the Examiner and have concluded that no reasonable construction of Spinney would support a position that "suggests this element of Appellants' claim 1," the arguments have been fully considered but are not found to be persuasive, because Spinney discloses address stored in a CAM (See column 2, lines 8-16, lines 62-65) and he further discloses address stored in binary search trees (See column 3, lines 10-22).

In response to applicants' arguments regarding "***With respect to claim 1, limitations (b) and (c) set forth above, Appellant is aware of the Examiner's contention that Gupta does teach these limitations. Appellants respectfully disagree and argue no such teachings are found in Gupta. For example, the Examiner relied on Gupta, Col. 6, lines 63-67, Col. 7, lines 1-5, and Col. 9, lines 2-11 for teaching "setting a threshold based upon the fixed number of nodes to be traversed in the tree structure (claim 1).2 It is Appellants' contention these teachings from Gupta are two nebulous and unclear to be construed as suggesting this limitation in Appellants' claim 1. In fact, the language at Gupta, Col. 6, lines 63-67 and Col. 7, lines 1-5 teaches "compare a count with a threshold". There is no teaching as to how the threshold is obtained. Moreover, this teaching in Gupta is different from "setting a threshold based upon the number of nodes to be traversed in the tree structure" (Appellants' claim 1)***," the arguments have been fully considered but are not found to be persuasive, because

Gupta does disclose setting a threshold in order to update the nodes in the tree structure (See column 7, lines 1-47). The threshold is set based on the number of nodes within the tree.

In response to applicants' arguments regarding *"**Gupta would have to be modified to suggest setting the threshold based upon a fixed number of nodes to be traversed and traversing the tree until the threshold is met. Such modification would effectively change the principle of operation on which Gupta is based**,"* the arguments have been fully considered but are not found to be persuasive, because examiner believes that Gupta teaches setting a threshold as discussed above.

In response to applicants' arguments regarding *"**Appellants' contend traversing all nodes in a branch is a "teach away" from traversing a fixed number of nodes set forth in Appellants' claim 1**,"* the arguments have been fully considered but are not found to be persuasive, because the applicant does not disclose how the "fixed number of nodes" is determined nor does the claim language exclude the possibility that all the nodes in the tree can be the "Fixed number". Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicants' arguments regarding "***Claim 7 depends on claim 2 which depends on claim 1. Due to the dependency of claim 7 on claim 1, claim 7 is patentable for arguments set forth above relative to claim 1 and incorporated herein by reference. In addition,, claim 7 is separately patentable. Claim 7 states***

the second predetermined characteristic include leaves. When read in combination with claim 1, the second predetermined characteristics include leaves of the tree structure. As argued above, this limitation of appellants' invention is not suggested in the reference singularly or in combination," the arguments have been fully considered but are not found to be persuasive, because Gupta discloses the hybrid tree also contains leaf nodes which plurality of entries responsive to the lookup values (See column 2, lines 10-14; column 9, lines 4-11).

In response to applicants' arguments regarding "***Claim 10 is patentable over art of record due to its dependency on claim 9 which depends on claim 8. In addition, claim 10 is separately patentable. The limitation of storing address of a leaf in which the action [to be taken relative to a frame] is stored is not found or suggested in the combination of Gupta and Spinney,***" the arguments have been fully considered but are not found to be persuasive, because Gupta discloses a leaf search node respond to header information which contain destination IP addresses (See column 2, lines 10-17).

In response to applicants' arguments regarding "***Claim 12, an apparatus, recites: "an embedded processor complex including a plurality of protocol processor; a control point processor..., a plurality of hardware accelerator co-processor...; a memory location operatively coupled to the processor complex and storing a value representative of the maximum number" of nodes to be accessed during a tree search routine. It is Appellants' contention none of the recited elements are found in the combination of Gupta and Spinney,***" the

arguments have been fully considered but are not found to be persuasive, because Spinney discloses a controller (embedded control processor) with a processor to execute various processes and access packet memory addressed by a 20 bit address bus (See Spinney, column 5, lines 45-65) and Gupta discloses setting a threshold for the (maximum) number of nodes as discussed above.

In response to applicants' arguments regarding "***In addition, claim 13 is separately patentable. Claim 13 calls for a CAM and storing a pointer identifying a location whereat a leaf is stored. As argued above in B8 and incorporated herein by reference storing the address of the leaf in a CAM reduce the latency in which the device called a Network Processor obtain stored information relative to a packet. The reduction in latency is a benefit. In addition, the device is novel since at least one of the recited elements is not found in the combined references,***" the arguments have been fully considered but are not found to be persuasive, because Gupta discloses each branch nodes includes "subnode pointer" that points to locations for each sub-tries and each leaf search node includes a marker similar to the branch node (See column 4, lines 19-50)

In response to applicants' arguments regarding "***Appellants contend equating "insertion or a removal of a node" with leaf adjustment as set forth in claim 17 is improper; since nodes and leaves are different component of a tree and adjustment to one does not necessarily affect the other. In addition, "insertion or deletion" in Gupta was not done relative to a CAM. Therefore, the teachings of nodes in Gupta would not suggest the deletion of pointers in the CAM based***

upon leaf adjustment as set forth in claim 17," the arguments have been fully considered but are not found to be persuasive, because "leaf adjustment has not been defined within the claim language so therefore the examiner is taking the broadest reasonable interpretation of the meaning of leaf adjustment. When nodes are inserted or removed then the leafs are adjusted (See Gupta; column 7, lines 7-9). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

(11) Related Proceeding(s) Appendix

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Mellissa M. Chojnacki

Conferees:

Charles Rones

C. Rones

CHARLES RONES
SUPERVISORY PATENT EXAMINER

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